

Product Change Notice (PCN)

Subject: Addition of assembly sites of LQFP products for RH850 Series

Publication Date: 10/1/2025

Effective Date: 4/20/2026

Revision Description: Initial Release

Description of Change: Renesas will add the following assembly (ASSY) sites of LQFP products for RH850.

1. Addition of Nishiki for assembly

Product Series	Pin (LQFP)	Current ASSY Site	Additional ASSY Site	Other changes
RH850/P1 Series	80,100,144	Suzhou	Nishiki	Material: Die-bond material A to B

Product Series	Pin (LQFP)	Current ASSY Site	Additional ASSY Site	Other changes
RH850/F1L Series	48	Suzhou	Nishiki	There are no changes
RH850/F1KM-S1 Series				

2. Addition of ATJ-Kumamoto for assembly

Product Series	Pin (LQFP)	Current ASSY Site	Additional ASSY Site	Other changes
RH850/F1KH-D8 Series	176	Suzhou	ATJ-Kumamoto	Material: Suzhou material to ATJ-Kumamoto material Terminal width: 0.20 mm to 0.22mm
RH850/D1M1-V2 Series				

3. Addition of Suzhou for assembly

Product Series	Pin (LQFP)	Current ASSY Site	Additional ASSY Site	Other changes
RH850/E1 Series	144,176	Yonezawa	Suzhou	Material: Top-Metal: TiN to SiON Die-bond Material: A to B Wire Material: Au to Cu Mold Resin: Mold Resin for Au-wire to Mold Resin for Cu-wire Lead Frame Material: A to B
RH850/C1 Series				

Affected Product List:

Refer to "Product List" in "Appendix".

Reason for Change:

For the stable supply of products.

Impact on Fit, Form, Function, Quality & Reliability:

The change will have no impact on the form, fit, function, quality and reliability of the devices.

Product Identification: Our production history data can be queried by using the trace code of the product.

Qualification Status: Refer to "Q100 Qualification Test Results" in "Appendix".

Sample Availability Date: N/A

Device Material Declaration: Available upon request

- Note:
1. Acknowledgement must be received by Renesas within 30 days or Renesas will consider the change as approved.
 2. If timely acknowledgement is provided by Customer, then Customer shall have 90 days from the date of receipt of this PCN to make any objections to this PCN. If Customer fails to make objections to this PCN within 90 days of the receipt of the PCN then Renesas will consider the PCN changes as approved.
 3. If customer cannot accept the PCN then customer must provide Renesas with a last time buy demand and purchase order.

For additional information regarding this notice, please contact your Renesas sales representative.

Appendix
Product List

RH850/P1 Series (Current ASSY Site: Suzhou, Additional ASSY Site: Nishiki) "No P/N * change"

R7F701304EAFP-C#AA1	R7F701318EAFP-C#AA1	R7F701315EAFP-C#AA1	R7F701382EAFP-C#BA2
R7F701304GAFA-C#AA1	R7F701318GAFA-C#AA1	R7F701322EAFP-C#AA1	R7F701382GAFA-C#BA2
R7F701305EAFP-C#AA1	R7F701362EAFP-C#AA1	R7F701322GAFA-C#AA1	R7F701377EAFP-C#AA2
R7F701312EAFP-C#AA1	R7F701362GAFA-C#AA1	R7F701366EAFP-C#AA1	R7F701378EAFP-C#AA2
R7F701312GAFA-C#AA1	R7F701319EAFP-C#AA1	R7F701366GAFA-C#AA1	R7F701378GAFA-C#AA2
R7F701313EAFP-C#AA1	R7F701363EAFP-C#AA1	R7F701323EAFP-C#AA1	R7F701383EAFP-C#AA2
R7F701320EAFP-C#AA1	R7F701363EAFP-C#AAT	R7F701367EAFP-C#AA1	R7F701384EAFP-C#AA2
R7F701320GAFA-C#AA1	R7F701310EAFP-C#KA1	R7F701314EAFP-C#KA1	R7F701384GAFA-C#AA2
R7F701364EAFP-C#AA1	R7F701310GAFA-C#KA1	R7F701314GAFA-C#KA1	R7F701377EAFP-C#KA2
R7F701364GAFA-C#AA1	R7F701310EAFP-C#KA4	R7F701315EAFP-C#KA1	R7F701378EAFP-C#KA2
R7F701321EAFP-C#AA1	R7F701310GAFA-C#KA4	R7F701322EAFP-C#KA1	R7F701378GAFA-C#KA2
R7F701365EAFP-C#AA1	R7F701311EAFP-C#KA1	R7F701322GAFA-C#KA1	R7F701383EAFP-C#KA2
R7F701304EAFP-C#KA1	R7F701318EAFP-C#KA1	R7F701366EAFP-C#KA1	R7F701384EAFP-C#KA2
R7F701304GAFA-C#KA1	R7F701318GAFA-C#KA1	R7F701366GAFA-C#KA1	R7F701384GAFA-C#KA2
R7F701305EAFP-C#KA1	R7F701362EAFP-C#KA1	R7F701323EAFP-C#KA1	R7F701377EAFP-C#BA2
R7F701312EAFP-C#KA1	R7F701362GAFA-C#KA1	R7F701367EAFP-C#KA1	R7F701378EAFP-C#BA2
R7F701312GAFA-C#KA1	R7F701319EAFP-C#KA1	R7F701314EAFP-C#BA1	R7F701378GAFA-C#BA2
R7F701313EAFP-C#KA1	R7F701363EAFP-C#KA1	R7F701314GAFA-C#BA1	R7F701383EAFP-C#BA2
R7F701320EAFP-C#KA1	R7F701363EAFP-C#KAT	R7F701315EAFP-C#BA1	R7F701384EAFP-C#BA2
R7F701320GAFA-C#KA1	R7F701310EAFP-C#BA1	R7F701322EAFP-C#BA1	R7F701384GAFA-C#BA2
R7F701364EAFP-C#KA1	R7F701310GAFA-C#BA1	R7F701322GAFA-C#BA1	R7F701378E***AFP-C#KA2
R7F701364GAFA-C#KA1	R7F701310EAFP-C#BA4	R7F701366EAFP-C#BA1	R7F701378EY02AFP-C#KA2
R7F701321EAFP-C#KA1	R7F701310GAFA-C#BA4	R7F701366GAFA-C#BA1	R7F701379EAFP-C#AA2
R7F701365EAFP-C#KA1	R7F701311EAFP-C#BA1	R7F701323EAFP-C#BA1	R7F701380EAFP-C#AA2
R7F701304EAFP-C#BA1	R7F701318EAFP-C#BA1	R7F701367EAFP-C#BA1	R7F701380GAFA-C#AA2
R7F701304GAFA-C#BA1	R7F701318GAFA-C#BA1	R7F701375EAFP-C#AA2	R7F701385EAFP-C#AA2
R7F701305EAFP-C#BA1	R7F701362EAFP-C#BA1	R7F701376EAFP-C#AA2	R7F701386EAFP-C#AA2
R7F701312EAFP-C#BA1	R7F701362GAFA-C#BA1	R7F701376GAFA-C#AA2	R7F701386GAFA-C#AA2
R7F701312GAFA-C#BA1	R7F701319EAFP-C#BA1	R7F701381EAFP-C#AA2	R7F701379EAFP-C#KA2
R7F701313EAFP-C#BA1	R7F701363EAFP-C#BA1	R7F701382EAFP-C#AA2	R7F701380EAFP-C#KA2
R7F701320EAFP-C#BA1	R7F701363EAFP-C#BAT	R7F701382GAFA-C#AA2	R7F701380GAFA-C#KA2
R7F701320GAFA-C#BA1	R7F701310E***AFP-C#KA4	R7F701375EAFP-C#KA2	R7F701385EAFP-C#KA2
R7F701364EAFP-C#BA1	R7F701310EY01AFP-C#KA4	R7F701376EAFP-C#KA2	R7F701386EAFP-C#KA2
R7F701364GAFA-C#BA1	R7F701318E***AFP-C#KA1	R7F701376GAFA-C#KA2	R7F701386GAFA-C#KA2
R7F701321EAFP-C#BA1	R7F701318EY03AFP-C#KA1	R7F701381EAFP-C#KA2	R7F701379EAFP-C#BA2
R7F701365EAFP-C#BA1	R7F701318EY04AFP-C#KA1	R7F701382EAFP-C#KA2	R7F701380EAFP-C#BA2
R7F701310EAFP-C#AA1	R7F701362E***AFP-C#KA1	R7F701382GAFA-C#KA2	R7F701380GAFA-C#BA2
R7F701310GAFA-C#AA1	R7F701362EY05AFP-C#KA1	R7F701375EAFP-C#BA2	R7F701385EAFP-C#BA2
R7F701310EAFP-C#AA4	R7F701362EY06AFP-C#KA1	R7F701376EAFP-C#BA2	R7F701386EAFP-C#BA2

R7F701310GAFA-C#AA4	R7F701314EAFP-C#AA1	R7F701376GAFA-C#BA2	R7F701386GAFA-C#BA2
R7F701311EAFP-C#AA1	R7F701314GAFA-C#AA1	R7F701381EAFP-C#BA2	R7F701391EAFP-C#AA1
R7F701391EAFP-C#BA1	R7F701341EAFP#TA1	R7F701388EAFP-C#HA1	R7F701374AEAFP-C#BAT
R7F701391EAFP-C#RA1	R7F701389EAFP-C#AA1	R7F701339EAFP#TA1	R7F701374AEAFP-C#BAU
R7F701390EAFP-C#AA1	R7F701389EAFP-C#BA1	R7F701336EAFP#KA1	R7F701374AEAFP-C#HA1
R7F701390EAFP-C#BA1	R7F701389EAFP-C#RA1	R7F701337EAFP#KA1	R7F701330AEAFP#KA1
R7F701390EAFP-C#RA1	R7F701388EAFP-C#AA1	R7F701374AEAFP-C#AA1	R7F701331AEAFP#KA1
R7F701343EAFP#TA1	R7F701388EAFP-C#BA1	R7F701374AEAFP-C#BA1	

“***” means ROM Code

RH850/F1L Series (Current ASSY Site: Suzhou, Additional ASSY Site: Nishiki) “No P/N change”

R7F7010083AFP-C#AA4	R7F7010093AFP-C#KA4	R7F7010104AFP-C#BA4	R7F701A393AFP-C#AA4
R7F7010083AFP-C#BA4	R7F7010094AFP-C#AA4	R7F7010104AFP-C#KA4	R7F701A393AFP-C#BA4
R7F7010083AFP-C#KA4	R7F7010094AFP-C#BA4	R7F701A313AFP-C#AA4	R7F701A393AFP-C#KA4
R7F7010084AFP-C#AA4	R7F7010094AFP-C#KA4	R7F701A313AFP-C#BA4	R7F701A394AFP-C#AA4
R7F7010084AFP-C#BA4	R7F7010103AFP-C#AA4	R7F701A313AFP-C#KA4	R7F701A394AFP-C#BA4
R7F7010084AFP-C#KA4	R7F7010103AFP-C#BA4	R7F701A314AFP-C#AA4	R7F701A394AFP-C#KA4
R7F7010093AFP-C#AA4	R7F7010103AFP-C#KA4	R7F701A314AFP-C#BA4	
R7F7010093AFP-C#BA4	R7F7010104AFP-C#AA4	R7F701A314AFP-C#KA4	

RH850/F1KM-S1 Series (Current ASSY Site: Suzhou, Additional ASSY Site: Nishiki) “No P/N change”

R7F7016933AFP-C#AA1	R7F7016944AFP-C#AA1	R7F701695FAFP-C#AA1	R7F701A733AFP-C#AA1
R7F7016933AFP-C#BA1	R7F7016944AFP-C#BA1	R7F701695FAFP-C#BA1	R7F701A733AFP-C#BA1
R7F7016933AFP-C#KA1	R7F7016944AFP-C#KA1	R7F701695FAFP-C#KA1	R7F701A733AFP-C#KA1
R7F7016934AFP-C#AA1	R7F701694FAFP-C#AA1	R7F7016933AFP-C#AA9	R7F701A743AFP-C#AA1
R7F7016934AFP-C#BA1	R7F701694FAFP-C#BA1	R7F7016933AFP-C#BA9	R7F701A743AFP-C#BA1
R7F7016934AFP-C#KA1	R7F701694FAFP-C#KA1	R7F7016933AFP-C#KA9	R7F701A743AFP-C#KA1
R7F701693FAFP-C#AA1	R7F7016953AFP-C#AA1	R7F7016953AFP-C#AA9	R7F701A753AFP-C#AA1
R7F701693FAFP-C#BA1	R7F7016953AFP-C#BA1	R7F7016953AFP-C#BA9	R7F701A753AFP-C#BA1
R7F701693FAFP-C#KA1	R7F7016953AFP-C#KA1	R7F7016953AFP-C#KA9	R7F701A753AFP-C#KA1
R7F7016943AFP-C#AA1	R7F7016954AFP-C#AA1	R7F7016954AFP-C#AA9	
R7F7016943AFP-C#BA1	R7F7016954AFP-C#BA1	R7F7016954AFP-C#BA9	
R7F7016943AFP-C#KA1	R7F7016954AFP-C#KA1	R7F7016954AFP-C#KA9	

RH850/F1K-D8 Series (Current ASSY Site: Suzhou, Additional ASSY Site: ATJ-Kumamoto) “P/N change”

Suzhou	ATJ-Kumamoto	Suzhou	ATJ-Kumamoto
R7F7017083AFP-C#AA1	R7F7017083AFD-C#AA1	R7F7017093AFP-C#AA1	R7F7017093AFD-C#AA1
R7F7017083AFP-C#BA1	R7F7017083AFD-C#BA1	R7F7017093AFP-C#BA1	R7F7017093AFD-C#BA1
R7F7017083AFP-C#TA1	R7F7017083AFD-C#TA1	R7F7017093AFP-C#TA1	R7F7017093AFD-C#TA1

RH850/D1M1-V2 Series (Current ASSY Site: Suzhou, Additional ASSY Site: ATJ-Kumamoto) “P/N change”

Suzhou	ATJ-Kumamoto	Suzhou	ATJ-Kumamoto
R7F701442EAFB-C#AA0	R7F701442EAFD-C#AA0	R7F701442E***AFB-C#AA0	R7F701442E***AFD-C#AA0
R7F701462EAFB-C#AA0	R7F701462EAFD-C#AA0	R7F701462E***AFB-C#AA0	R7F701462E***AFD-C#AA0
R7F701442EAFB-C#BA0	R7F701442EAFD-C#BA0	R7F701442E***AFB-C#BA0	R7F701442E***AFD-C#BA0
R7F701462EAFB-C#BA0	R7F701462EAFD-C#BA0	R7F701462E***AFB-C#BA0	R7F701462E***AFD-C#BA0
R7F701442EAFB-C#TA0	R7F701442EAFD-C#TA0	R7F701442E***AFB-C#TA0	R7F701442E***AFD-C#TA0
R7F701462EAFB-C#TA0	R7F701462EAFD-C#TA0	R7F701462E***AFB-C#TA0	R7F701462E***AFD-C#TA0
R7F701462EAFB-C#TA9	R7F701462EAFD-C#TA9	R7F701462E***AFB-C#TA9	R7F701462E***AFD-C#TA9

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RH850/E1 Series (Current ASSY Site: Yonezawa, Additional ASSY Site: Suzhou) “P/N change”

Yonezawa	Suzhou	Yonezawa	Suzhou
R7F701201EAFP#BC0	R7F701201EAFP-C#BA0	R7F701205EAFP#BC0	R7F701205EAFP-C#BA0
R7F701201EAFA#BC0	R7F701201EAFA-C#BA0	R7F701205EAFA#BC0	R7F701205EAFA-C#BA0
R7F701201EAFA#BC1	R7F701201EAFA-C#BA1	R7F701205EAFA#BC1	R7F701205EAFA-C#BA1

RH850/C1 Series (Current ASSY Site: Yonezawa, Additional ASSY Site: Suzhou) “P/N change”

Yonezawa	Suzhou	Yonezawa	Suzhou
R7F701271EAFP#BC4	R7F701271EAFP-C#BA4	R7F701278EAFP#BC4	R7F701278EAFP-C#BA4
R7F701278EAFP#BC0	R7F701278EAFP-C#BA0	R7F701278EAFP#BC6	R7F701278EAFP-C#BA6

Q100 Qualification Test Results

AEC-Q100-REV-H

[Note : Qualification tests were performed using a representative product with the same wafer process and the same package structure, and also using generic data.]

Test	#	Reference	Test Conditions	Lots	S.S.	Total	Results (Fail of Total)	Comments: (N/A =Not Applicable)
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TEST GROUP A – ACCELERATED ENVIRONMENT STRESS TESTS

PC	A1	JESD22 A113 J-STD-020	Preconditioning: (Test @ Rm) SMD only; Moisture Preconditioning for THB/HAST, AC/UHST, TC, & PTC ; Peak Reflow Temp=260°C	Min.MSL=3			MSL=3	-
THB or HAST	A2	JESD22 A101	Temperature Humidity Bias: (Test @ Rm/Hot) Ta=85°C, RH=85%, 1000hrs	3	77	231	0 of 231	-
AC or UHST or TH	A3	JESD22 A118	Unbiased Highly Accelerated Stree Test: (Test @ Rm) Ta=110°C, 85% RH, 264h	3	77	231	0 of 231	-
TC	A4	JESD22 A104	Temperature Cycle: (Test @ Hot) Ta=-55°C to 150°C, 2000cyc (Grade0) Ta=-55°C to 150°C, 1000cyc (Grade1)	3	77	231	0 of 231 0 Fails after TC (WBP)	-
PTC	A5	JESD22 A105	Power Temperature Cycle: (Test @ Rm/Hot)	-	-	-	-	N/A
HTSL	A6	JESD22 A103	High Temperature Storage Life: (Test @ Rm/Hot) Ta=175°C, 1000hrs / Ta=150°C, 2000hrs (Grade0) Ta=175°C, 500hrs / Ta=150°C, 1000hrs (Grade1)	1	45	45	0 of 45	-

TEST GROUP B – ACCELERATED LIFETIME SIMULATION TESTS

HTOL	B1	JESD22 A108	High Temp Operating Life: (Test @ Rm/Cold/Hot) Ta=150°C, 1000hrs	3	77	231	0 of 231	-	
ELFR	B2	AEC-Q100-008	Early Life Failure Rate: (Test @ Rm/Hot) Ta=150°C, 48hrs (Grade0) Ta=125°C, 48hrs (Grade1)	3	800	2400	0 of 2400	-	
EDR	B3	AEC-Q100-005	NVM Endurance & Data Retention Test: (Test @ Rm/Hot)	For HTOL	3	77	231	0 of 231	-
				For HTSL	1	45	45	0 of 45	-

TEST GROUP C – PACKAGE ASSEMBLY INTEGRITY TESTS

WBS	C1	AEC-Q100-001 AEC-Q003	Wire Bond Shear Test: (Cpk > 1.67)	30 bonds	5 parts Min.	30 bonds	0 of 30bonds	Cpk>1.67
WBP	C2	Mil-STD-883 Method 2011 AEC-Q003	Wire Bond Pull: (Cpk > 1.67); Each bonder used	30 bonds	5 parts Min.	30 bonds	0 of 30bonds	Cpk>1.67
SD	C3	JESD22 B102 JSTD-002D	Solderability: (>95% coverage) 8 hr steam aging prior to testing	1	15	15	0 of 15	-
PD	C4	JESD22 B100, JESD22 B108 AEC-Q003	Physical Dimensions: (Cpk > 1.67)	3	10	30	0 of 30	Cpk>1.67
SBS	C5	AEC-Q100-010 AEC-Q003	Solder Ball Shear: (Cpk > 1.67); 5 balls from min. of 10 devices	3	50balls	150	0 of 150	N/A
LI	C6	JESD22 B105	Lead Integrity: (No lead cracking or breaking); Through-hole only; 10 leads from each of 5 devices	-	-	-	-	N/A

TEST GROUP D – DIE FABRICATION RELIABILITY TESTS

EM	D1	JESD61	Electromigration:	-	-	-	Pass	Confirmed by process TEG
TDDB	D2	JESD35	Time Dependant Dielectric Breakdown:	-	-	-	Pass	Confirmed by process TEG
HCI	D3	JESD60 & 28	Hot Carrier Injection:	-	-	-	Pass	Confirmed by process TEG
NBTI	D4	JESD90	Negative Bias Temperature Instability:	-	-	-	Pass	Confirmed by process TEG
SM	D5	JESD61.87 & 202	Stress Migration:	-	-	-	Pass	Confirmed by process TEG

Test	#	Reference	Test Conditions	Lots	S.S.	Total	Results (Fail of Total)	Comments: (N/A =Not Applicable)
TEST GROUP E- ELECTRICAL VERIFICATION								
TEST	E1	User/Supplier Specification	Pre and Post Stress Electrical Test:	All	All	All	0 of All	-
HBM	E2	AEC-Q100-002	Electrostatic Discharge, Human Body Model: (Test @ Rm/Hot); (2KV HBM / Class 2 or better)	1	3	3	0 of 3 ESD Level=HBM:2	HBM>2KV
CDM	E3	AEC-Q100-011	Electrostatic Discharge, Charged Device Model: (Test @ Rm/Hot); (750V corner leads, 500V all other leads / Class C4B or better)	1	3	3	0 of 3 ESD Level=CDM:C4B	Corner leads: 750V Pass All other leads:500V Pass
LU	E4	AEC-Q100-004	Latch-Up: (Test @ Rm/Hot)	1	6	6	0 of 6	-
ED	E5	AEC-Q100-009 AEC-Q003	Electrical Distributions: (Test @ Rm/Hot/Cold) (where applicable, Cpk>1.67)	3	30	90	Cpk>1.67	-
FG	E6	AEC-Q100-007	Fault Grading:	-	-	-	>98%	-
CHAR	E7	AEC-Q003	Characterization: (Test @ Rm/Hot/Cold)	-	-	-	Pass	According to Renesas standard procedure
EMC	E9	SAE J1752/3	Electromagnetic Compatibility (Radiated Emissions)	1	1	1	0 of 1	-
SC	E10	AEC Q100-012	Short Circuit Characterization	-	-	-	-	N/A
SER	E11	JESD89-1 JESD89-2 JESD89-3	Soft Error Rate	1	3	3	Pass	-
LF	E12	AEC-Q005	Lead (Pb) Free: (see AEC-Q005)	-	-	-	Pass	Solderability: See SD (C3) result. Solder heat resistance: N/A (Wave Solder is Not recommended.) Whisker: Performed on product TEG with test method based on JESD201.

TEST GROUP F – DEFECT SCREENING TESTS

PAT	F1	AEC-Q001	Process Average Testing: (see AEC-Q001)	All	All	All	Reject units outside PAT limits	Apply to mass production according to Renesas standard procedure
SBA	F2	AEC-Q002	Statistical Bin/Yield Analysis: (see AEC-Q002)	All	All	All	Reject units outside criteria	Apply to mass production according to Renesas standard procedure

TEST GROUP G – CAVITY PACKAGE INTEGRITY TESTS (for Ceramic Package testing only)

MS	G1	JESD22 B104	Mechanical Shock: (Test @ Rm)	-	-	-	-	N/A
VFV	G2	JESD22 B103	Variable Frequency Vibration: (Test @ Rm)	-	-	-	-	N/A
CA	G3	MIL-STD-883 Method 2001	Constant Acceleration: (Test @ Rm)	-	-	-	-	N/A
GFL	G4	MIL-STD-883 Method 1014	Gross and Fine Leak:	-	-	-	-	N/A
DROP	G5	-----	Drop Test: (Test @ Rm) MEMS cavity parts only. Drop part on each of 6 axes once from a height of 1.2m onto a concrete surface.	-	-	-	-	N/A
LT	G6	MIL-STD-883 Method 2004	Lid Torque:	-	-	-	-	N/A
DS	G7	MIL-STD-883 Method 2019	Die Shear:	-	-	-	-	N/A
IWV	G8	MIL-STD-883 Method 1018	Internal Water Vapor:	-	-	-	-	N/A